

# Spray Adhesive Manual



SPECIALISTS IN TOTAL 'PAINT SHOP SUPPORT'

#### CONTENTS

SPRAY PATTERNS	3
CANISTER PREPARATION  TIP INSTALLATION  WEB SPRAY  PEBBLE/MIST SPRAY  SNOWFLAKE SPRAY  CHANGING TO A NEW CANISTER  DISPOSING OF AN EMPTY CANISTER	



#### SPRAY PATTERNS

#### TYPES OF SPRAY PATTERN



WEB SPRAY
Web Spray
adhesives have a
high build spray
pattern, which
resembles a
Spider's Web.



MIST SPRAY Mist Spray adhesives are released from the canister as a fine mist, creating a light/consistent droplet pattern.



PEBBLE SPRAY Pebble Spray adhesives has a smooth consistent patter, similar to Mist Spray, but the droplets are bigger



SNOWFLAKE SPRAY Snowflake Spray adhesives are high build, with a large flake pattern, resembling snowflakes.



## CANISTER PREPARATION



1.Screw the lager hose nut to the gun thread (clockwise) and fully tighten with a wrench. Check hose is securely attached.



2. Screw the smaller hose nut to the canister (clockwise) and fully tighten with a wrench. check the hose is securely attached.



3. Turn on the valve on the canister counter-clockwise until fully open. Check connections for any leaks and if any occur tighten connections. DO NOT TURN THE CANISTER VALVE OFF UNTIL THE CANISTER IS EMPTY (this is to prevent the adhesive curing in the hose and gun).



4. On initial use, or if the product has been standing for more than 12 hours, the hose and gun may require a purge. Do this by pulling the trigger and adjusting the flow by turning the adjustment screw at the back of the gun (counter-clockwise to open and clockwise to close). Dispense and discard adhesive until a consistent spray pattern is achieved.



## TIP INSTALLATION



1.Unscrew tip retainer



3. Lay tip retainer on top and screw on



2.Lay spray tip on top



4. Tighten with wrench until tip is straight



5.Spray!



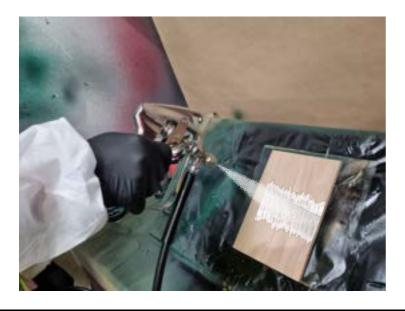
#### WEB SPRAY



1.Prepare the surface to be bonded; ensuring both faces are clean, free of dust, dirt and grease. If necessary wipe clean with proprietary solvent-based cleaner. DO NOT USE MINERAL SPIRITS OR CITRUS-BASED CLEANERS.

2.Hold spray gun at a constant distance, allowing the adhesive to web across the surface with approximately 5-15% overlap to successive passes foe thin laminates to reduce risk of telegraphing (note - correct coat weight must be achieved).

3.Maintain a constant speed of application during spraying, applying a consistent and thorough coating without allowing the adhesive to puddle or heavily 'wet' the surface. Maximum bond strength is achieved with coverage of between 80-100% and a recommended minimum coat weight of 2 dry grams per ft2.





4. Maximum adhesion will be obtained by spraying opposing faces at 90 degrees to each other, for example, one face vertically, the other face horizontally. Double coating perimeter of face and edges is recommended, including areas around subsequent cutting positions.

#### BONDING TECHNIQUES



**Correct Application** 



Coverage too Heavy



Coverage too Light



3" Hand Roller

- Do not angle spray gun or move in an arc while spraying. Hold gun at 90 degrees to the surface while spraying. Release trigger at end of each pass to optimize coverage.
- Many man-made boards such as plywood and especially bender board and MDF are very absorbent and will need a primer coat (shown in image 'Coverage too Light'). Allow to to dry, then apply the normal 'Correct Application' as shown, over top of primer coat.
- Many substrates should be seen as hard to bond, for example metal faced HPL. plastic/polyethylene sheets or products with memory (also soft and thick materials may require 2nd or 3rd coat). Best results are obtained by multiple coats rather than one heavy coat which may result in heavy wetting of surface and increased drying times. Make sure you always test before using in production.
- Allow adhesive to dry (see product Technical Data Sheets for correct drying times). Test for dryness using back of hand of hand only - surface should be tacky but adhesive should not transfer to skin.
   Position substrates correctly and press together working from centre outwards. Apply adequate pressure using nip roller or 3" hand roller and body weight as a minimum in order to achieve at least 35psi at glue line. REPOSITIONING THE SUBSTRATES IS NOT POSSIBLE AFTER CONTACT HAS BEEN MADE.
- Immediate trimming/routing is possible. Full strength is achieved after 24-48 hours depending on temperature and humidity.
- No Particles, no settling (shake/purge not needed)
- Variable spray patters
- Less overspray
- Lace, web spray pattern are even number products (90, 74, 72...)



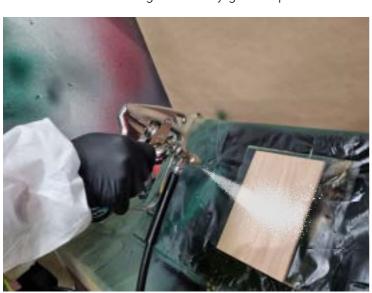
#### PEBBLE/MIST SPRAY

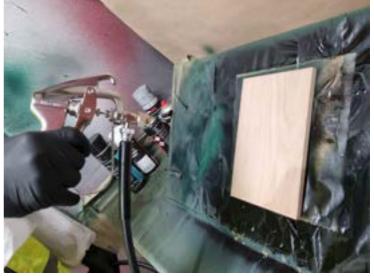


1.Prepare the surface to be bonded; ensuring both faces are clean, free of dust, dirt and grease. If necessary, wipe clean with propriety solvent-based cleaner. DO NOT USE MINERAL SPIRITS OR CITRUS-BASED CLEANERS.

2.Hold spray gun at a constant distance of between 6-10" from the surface, allowing the adhesive to droplet across the surface with approximately 5-15% overlap to successive passes for thin laminates to reduce risk of telegraphing.

3.Maintain a constant speed of application during spraying, applying a consistent and thorough coating without allowing the adhesive to puddle or heavily 'wet' the surface. Maximum bond strength is achieved with coverage of between 80-100%, and a recommended minimum coat weight of 2 dry grams per ft2.





4. Maximum adhesion will be obtained by spraying opposing faces at 90 degrees to each other, for example, one face vertically, the other face horizontally. Double coating perimeter of face and edges is recommended, including areas around subsequent cutting positions.



#### BONDING TECHNIQUES

- Do not angle spray gun or move in an arc while spraying. Hold gun at 45 degrees to surface while spraying. Release trigger at end of each pass to optimize coverage.
- Many man-made boards such as plywood and MDF are very absorbent and will need a primer coat (shown in image 'Coverage too Light'). Allow to dry, then apply the normal 'Correct Application', as shown, on top of the primer coat.
- Many substrates should be regarded as difficult to bond, for example metal faced HPL, plastic/polyethylene sheets or products with memory (also soft and thick materials may require 2nd or 3rd coat). Best results are obtained by multiple coats rather than one heavy coat which may result in heavy wetting of surface and extended drying times. Always test before using in production.
- Allow adhesive to dry (see product Technical
  Datasheet for appropriate drying times). Test for
  dryness using back of hand only; surface should be
  dry and adhesive should not transfer to skin. Position
  substrates correctly and press together working from
  centre outwards. Apply adequate pressure using nip
  roller or 3" hand roller and body weight as a
  minimum in order to achieve at least 35psi at glue
  line. REPOSITIONING IS NOT POSSIBLE AFTER
  CONTACT HAS BEEN MADE.
- Immediate trimming/routing is possible. Full strength is achieved after 24-48 hours depending on temperature and humidity.
- Dispersions suspended particles that can settle (shake/purge)
- Translucent glue lines
- Non-telegraphing texture, smooth
- Fine, misty particle spray



**Correct Application** 



Coverage too Heavy



Coverage too Light



3" Hand Roller



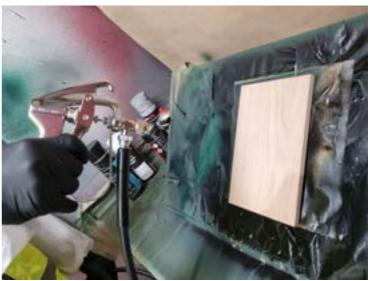
#### SNOWFLAKE SPRAY



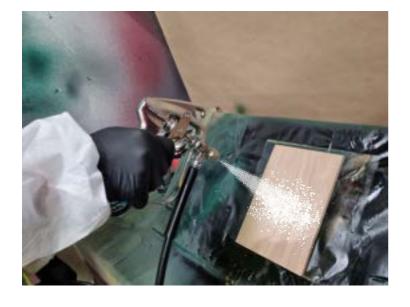
1.Prepare the surface to be bonded; ensuring both faces are clean, free of dust, dirt and grease. If necessary, wipe clean with propriety solvent-based cleaner. DO NOT USE MINERAL SPIRITS OR CITRUS-BASED CLEANERS.

2.Hold spray gun at a constant distance of between 2-3 feet from the surface, allowing the adhesive to snowflake across the surface with approximately 5-15% overlap on successive passes.

3. Maintain a constant speed of application during spraying, applying a consistent and thorough coating without allowing the adhesive to puddle or heavily 'wet' the surface. Maximum bond strength is achieved with coverage of between 80-100% and a recommended minimum coat weight of 2 dry grams per ft2



4.Spray only one substrate. Snowflakes are about 1/8" tall and 1/4" apart.





### BONDING TECHNIQUES



**Correct Application** 



Coverage too Light



Coverage too Heavy



3" Hand Roller

- Do not angle spray gun or move in an arc while spraying. Hold spray gun at 90 degrees to surface while spraying. Release trigger at end of each pass to optimize coverage.
- Snowflake products cure through exposure to atmospheric or substrate moisture. If substrates are non-porous, adhesive will cure more slowly.
- Allow adhesive to dry 5-15 minutes (see product Technical Datasheet for appropriate drying times).
   Test for dryness using back of hand inly; surface should be tacky but adhesive should not transfer to skin. Position substrates correctly and press together working from centre outwards. Apply adequate pressure using a roller or block.
   REPOSITIONING IS NOT POSSIBLE AFTER CONTACT HAS BEEN MADE.
- Porous substrates: 25% of strength will be achieved in 60 minutes, full strength achieved overnight.
- Non-porous substrates. Allow to cure at least 8 hours before handling.
- They spray in a unique snowflake pattern, designed to give a slight rise as the droplets build on the surface of the board. This spray pattern promoted the adhesive to anchor to the fleece or scrim-backing resulting in a super-strong bond!



#### CHANGING TO A **NEW CANISTER**



SAFETY GLASSES AND GLOVES MUST BE WORN DURING THE DISPOSAL PROCESS

1. Turn the valve on the canister counterclockwise until fully closed.

2. Pull the trigger on the gun and hold for at least 10 seconds to expel residual pressure.



3. Unscrew the hose nut and disconnect the hose from the empty canister.



4. Connect the hose and gun to the new canister (follow Step 2-4 on page 4)

THIS PROCESS SHOULD FOLLOWED THROUGH IMMEDIATELY AND ADHESIVE SHOULD BE DISPENSED FROM THE NEW CAN OR THE GUN AND HOSE WILL BE BLOCKED AND BECOME UNUSABLE. IF YOU HAVE FINISHED, YOU WILL NEED TO RUN THINNERS THROUGH THE GUN AND HOSE TO CLEAN THEM READY FOR FUTURE JOBS, OTHERWISE THEY WILL BLOCK UP.



# DISPOSING OF AN EMPTY CANISTER



1.Lay the empty canister on its side with the valve pointing away from the operator, and well away from flammable sources.

2.0pen the canister valve counter-clockwise and realise an residual pressure.



3.Stand Canister upright. Use a hammer and brass punch or other non-sparking instrument to puncture the friable disc.

4.As long as the user is able to accept responsibility for depressurizing the canister, it can be disposed of as per your normal scrap metal disposal (subject to local waste restrictions)















#### **ULTRIMAXSTORE.COM**

#### **Ultrimax Ltd**

Shaw Lane Industrial Estate, Ogden Road, Doncaster, DN2 4SE

- t. 01302 856666
- e. sales@ultrimaxcoatings.co.uk

